

# CONSULTATION CHART

OF THE

## Eye-Symptoms and Eye-Complications of General Diseases

ARRANGED AFTER FOERSTER AND OTHERS, BY

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### I.

#### RESPIRATION AND CIRCULATION.

**CORYZA.**—Acute conjunctivitis.  
**CHRONIC PULMONARY CATARRH.**—Chronic conjunctivitis.  
**NASAL CATARRH**—Blennorrhœa, lach. sac.  
**WHOOPING COUGH.**—Sub-conj. hemorrhage, exophthalmos, luxation of lens, retinal hem. (*Medical and Surgical Rep.*, Sept. 18, '80).<sup>3</sup>  
**EMPHYSEMA.**—Intra-ocular hem. (Retina or vitreous, etc.)<sup>2</sup>  
**SUFFOCATION.**—Sub-conj. hem., retinal hem.<sup>2</sup>  
**TUBERCULOSIS.**—Tubercle in choroid, iris, and ocular conj.<sup>2</sup>  
**PULMONARY TUBERCULOSIS, PNEUMONIA, PLEURO-PNEUMONIA.**—Pupils dil. (from irritation, sympathetic.)  
 In impeded respiration, dilated pupils indicate effect of carbonic acid on medula.  
**VENOUS OBSTRUCTION IN HEART OR LUNGS.**—Intra-ocular hem.<sup>2</sup>  
**ATHEROMA.**—Retinal hem.  
 The fatty crescents in cornea, above and below (arcus senilis), indicate fatty degeneration of arterial system only in exceptional instances—chiefly in children.  
**INCREASED ARTERIAL PRESSURE.**—Retinal hem.  
**HYPERTROPHY OF LEFT VENTRICLE.**—Retinal hem.  
**PERNICIOUS ANÆMIA.**—Retinal hem.  
**INSUFFICIENCY OF AORTIC VALVES.**—Pulsion of retinal arteries.  
**ANEURISMS OF CAROTID, INNOMINATA AND AORTA.**—Myosis from pressure on sympathetic.<sup>1</sup>  
**VALVULAR DISEASES OF HEART, ENDOCARDITIS AND CAROTID ANEURISMS.**—Embolism of central artery of retina,<sup>2</sup> or retinal branch.<sup>3</sup>  
**EXHAUSTIVE HEMORRHAGES.**—Atrophy opt. n.  
**HEMORRHAGIC DIATHESIS.**—Sub-conj. and intra-oc. hemorrhage.<sup>1</sup>

### II.

#### DIGESTIVE ORGANS.

**VOMITING.**—Sub-conj. hem.  
**HEMORRHAGE FROM STOMACH OR BOWELS.**—Atrophy optic nerves.<sup>1</sup>  
**ICTERUS.**—Yellow staining of oc. conj.  
**SPLENIC LEUKEMIA.**—Leukemic retinitis.<sup>1</sup>  
**TEETH.**—Very doubtful. (FOERSTER.) Paresis of motor nerves of eye.<sup>3</sup>  
**HYPERTROPHY, CIRRHOSIS AND CHRONIC DISEASE OF LIVER.**—Night blindness.<sup>2</sup>  
**CHOLERA INFANTUM.**—Eyes closed, pupils dil.  
**INTESTINAL WORMS.**—Amblyopia.<sup>3</sup>  
**CONSTIPATION OF BOWELS.**—Retinal hem. (C. f. A., iv, 304.).<sup>3</sup>

### III.

#### URINARY ORGANS.

**BRIGHTS' DISEASE.**—Retinitis albumnurica, uremic amaurosis, cataract.<sup>2</sup>  
**UREMIA OF PREGNANCY AND SCARLET FEVER.**—Ret. alb. uremic am.<sup>1</sup>  
**LITHÆMIA.**—Opt. neuritis, double vision.  
**DIABETES.**—Cataract, iritis, retinitis.<sup>1</sup>

### IV.

#### SEXUAL ORGANS.

**FEMALE SEXUAL DISEASES.**—No part of eye is exempt from influence of female diseases, except perhaps lach. apparatus.  
**PELVIC CELLITITIS, UTERINE DISPLACEMENTS, ANOMALIES OF MENSTRUATION, METRITIS, ENDO-METRITIS, CERVICITIS AND TUMORS.**—Asthenopia, retinal hyperesthesia, etc., iritis.  
**CLIMACTERIC PERIOD.**—Opt. neuritis, atrophy opt. n., iritis.<sup>1</sup>  
**PUERPERAL DISEASE.**—Septic embolism of globe.<sup>2</sup>  
**ANOMALIES OF MENSTRUATION.**—Periodically aggravate affections of lid and conj.  
**LACTATION.**—Asthenopia.  
**CHLOROSIS.**—Opt. neuritis.<sup>1</sup>

**EXCESSIVE VENERY.**—Photopsia, conj. infl., blepharospasm.

### V

#### NERVOUS SYSTEM.

**CEREBRAL CONGESTION.**—Muscae volitantes, congestion of fundus oculi.<sup>1</sup> Opt. neuritis.<sup>1</sup>  
**APOPLEXY.**—Pupil dil. (hem. into Pons contracted).—NOTHNAGEL. Atrophy optic nerve.  
 Retinal apoplexy precedes cerebral apoplexy frequently.  
**CEREBRAL MILIARY ANEURISMS.**—Mil. an. in retina. (Have only been recognized post mortem).  
**PACHYMINGITIS.**—Pupils contr. later dil. and fixed.  
**MENINGITIS AND CEREBRO-SPINAL MEN.**—Pupil contr. in first stage, dil. in second, opt. neuritis, neuro-retinitis, ptosis, paralysis of ocular muscles; later, opt. nerve atrophy, or choroiditis, irido choroiditis, panophthalmitis (chiefly in children).<sup>1</sup>  
**PURULENT MEN.**—Ocular chemosis, exophthalmos.  
**BASILAR TUBERCULAR MEN.**—Irregular movements of globes, excessive winking, nystagmus; inequality of pupils, ptosis, strabismus, unilateral dil. of pupil, opt. neuritis. Later, dil. both pupils, double ptosis.  
**CHRONIC BASILAR MEN.**—Paralysis of third, fourth and sixth, opt. neuritis and atrophy.  
**HYDROCEPHALOUS.**—Pupil dil. opt. neuritis; later, atrophy.  
**SEROUS EFFUSION INTO BRAIN.**—Pupil dil.  
**ANÆMIA OF BRAIN.**—Pupils contr.  
**CONCUSSION OF BRAIN.**—First stage, pupils contr. second, dil.  
**GENERAL CEREBRITIS.**—Opt. neuritis.  
 Monocular dil. of pupil, responding to light, indicates threatened brain disease.  

BRAIN TUMORS (17.)	Intra-oc. extremity opt. nerve
" ABSCESES (3)	engorged and swollen "choked disk,"
" SOFTENING (2)	
" HEMORRHAGE (1.)	

 (Figures indicate relative frequency in twenty-three cases.—LIVINGSTON JACKSON.)

**BRAIN TUMORS.**—At first vision only slightly affected, later tonic spasm of oc. muscles, strab., and ptosis, pupils dil., vision lost.  
**DISEASE OF CEREBELLUM.**—Nystagmus.  
**EPILEPSY.**—Sub-conj. hem., dil. pupil at commencement of fit, temporary strab., atrophy opt. n., color auræ (red may be blue, etc.)—H. JACKSON, rotation of globes.  
**HYSTERIA.**—Lid tremor, upward rolling of globes. Amblyopia<sup>2</sup> and temporary strab. (Cent. f. Augenb., May, '80).<sup>3</sup>  
**CHOREA.**—Spasms of orbicularis or levator palpi, pupils dil., at times sluggish, to light.  
**CATALEPSY.**—Pupils dil. and fixed, anæmia of fundus oculi.  
**CONVULSIONS OF CHILDHOOD.**—(From teeth, worms, etc.)—Pupils contr. strab., upward rolling of globes, later dil. of pupils, temporary ptosis.  
**PUERPERAL CONVULSIONS.**—Sudden strab., contr. pupils, ptosis, later dil. pupils.

**IDIOCY.**—Strab. atrophy opt. n., nystagmus.  
**CEREBRAL SCLEROSIS.**—Nystagmus, ptosis, paralysis of oc. muscles, mydriasis, atrophy opt. n.  
**GENERAL CEREBRAL PARALYSIS.**—Pupils unequal, opt. neuritis, later atrophy opt. n. (41 out of 53 cases.—ALBUTT.)

If, in acute mania, contr. of pupils occurs, general cerebral paralysis is to be looked for. Other forms of insanity have sluggish pupils, opt. neuritis and atrophy, 60 per cent. have unequal pupils. If pupils react to light in blind persons, disease is beyond tubercula quadrigemini.

Pressure on brain, from whatever cause, produces dil. of pupil.  
 Irritation of brain from whatever cause, produces contr. of pupil.

Dil. of pupil more frequently observed in brain diseases.

Contr. of pupil frequently observed in spinal diseases, dil. very rarely.

If nasal half of right, and temporal of left retina is blind, disease is in left hemisphere, beyond chiasm (and vice versa).<sup>2</sup> If one eye is blind lesion in front of chiasm.<sup>2</sup> If both, at chiasm, or general brain disease. External halves of retina, fat. degens. of circles of Willis.<sup>3</sup> Nasal halves ant. part of chiasm.<sup>3</sup>

**PROGRESSIVE MUSCULAR ATROPHY.**—Unilateral contr. of pupils.<sup>1</sup>

**CHRONIC MYELITIS.**—Opt. neuritis, paralysis of eye muscles, pupils contr.

**TALES.**—More than one-half have eye affections (CYON). Early symptom, transient double vision (CHARCOT). Robertson's (Argyll) pupils, (i. e., very small, do not respond to light, but

contract when object is carried to eye). Atrophy opt. nerve (may be first symptom).—CHARCOT. Marked insensitivity to red and green, nystagmus when object is observed closely.

Robertson's pupils are sometimes observed in other diseases of cord.

**TETANUS.**—Strab. (precursor of death).—WUNDERLICH.

**EMBOLISM CEREBRAL ARTERIES.**—Pupils dil. or contr., or alternating.

**PARALYSIS OF CERV. SYMPATHETIC.**—Slight ptosis and contr. of pupil, eye ball slightly soft.<sup>3</sup>

**IRRITATION OF CERVICAL SYMPATHETIC FROM ABSCESES, TUMORS, ETC.**—Pupils dil.

**PARALYSIS OF THIRD NERVE.**—All ocular muscles, except sup. oblique and ext. rectus, ptosis, loss of accommodation and pupil dil.

**FOURTH.**—Movements of globe restricted downward and inward.

**SIXTH.**—Movements restricted outward.

**FACIAL.**—Paralysis of orbicularis.

**PARALYSIS OF FIFTH.**—Neuro-paralytic ophth. (haziness, ulcers, and sloughing of cornea).

The isolated paralysis of 3d, 4th, 5th, 6th, motor br. of 7th—rare in brain disease; in some cases precedes it.<sup>2</sup> Paralysis of single nerve with opt. neuritis, indicates brain disease. Auditory branch of 7th frequently becomes affected in brain tumors. Of the 6th and 7th together, always brain disease. Strab., ptosis and wide dil. of pupils point to ventricular and basilar affections.<sup>2</sup> Contr. of pupil commencing meningitis, encephalitis and dement. paralytica.

**LESION OF TUBERCULA QUADRIGEMINI.**—Sudden and complete blindness, pupils dil. and fixed, with other symptoms of brain disease, negative ophthalmoscopic results.<sup>2</sup> Lesion on one side produces blindness of other eye (FLORENS). When right tuberculum is irritated, both eyes deviate to left, and vice versa ("conjugate deviation").

**CEREBRAL PEDUNCLES.**—Paralysis of 3d of same side, with par. of facial or of upper and lower extremities of opposite, conj. deviation of globes.

Conjugate deviation of eye often accompanied by rotation of head on its axis, is observed from lesion of different parts of cerebrum,<sup>1</sup> often in vicinity of corpus striatum or cerebral peduncles. MIGRAINE.—Scotoma. During attack, globe retracted, pupils dil. Toward end, pupils contr. Sometimes these symptoms are reversed.

**HEADACHE.**—Due often to want of spectacles. In weak, nervous persons, pupils frequently dil.

**FRACTURE BASE OF SKULL.**—Opt. neuritis, atrophy.

**HERPES ZOSTER OPHTHALMICUS.**—ulcers of cornea.

**TIC DOLOROUX.**—Orbicular spasm, contr. pupil, photophobia, lachrymation, congestion or conj.

**BASEDOW'S DISEASE.**—Exophthalmos, pupils dil., pulsation of retinal art.; upper lids follow globe only slightly, or not at all; temporary paralysis of ocular muscles;<sup>1</sup> mydriasis,<sup>1</sup> necrosis of cornea and panophthalmitis. (Am. Journal Med. Sci., Oct. '80).<sup>3</sup>

**CONJUGATE DEViations.**—(See above). Relative frequency: First the 3d, then optic, facial and 6th. Paralysis often incomplete, preceded by transient double vision. Seventy-five per cent. of cases of par. of mot. nerves of eye due to syph. 3d, oftenest, dangerous sympt. indicates intra-cranial disease at base of brain, which may involve cerebral centers.

**VARIOLA HEMORRHAGICA.**—Sub-conj. hem.

**TYPHOID FEVER.**—Corneal ulcers,<sup>2</sup> paralysis of accommodative ap. and oc. muscles,<sup>2</sup> dil. of pupil, atrophy opt. n.<sup>2</sup>

**RELAPSING FEVER.**—Infl. of choroid, cil. body and iris, opacities of vitreous, alternating pupils in convalescence.—(PELTZER.)

**DIPHTHERIA.**—Paresis of accommodation (also in slight diph. angina) of oc. muscles, conjunctivitis, metastatic tenonitis. (Am. Journ. Med. Sci., Apr., '80).<sup>3</sup>

**MALARIA.**—Longitudinal infiltrations of cornea followed by ulceration. (Trans. Med. Soc., N. J., '81).<sup>3</sup> Ischemia of retina.<sup>2</sup> Iritis.<sup>2</sup>

**CHOLERA.**—Cyanosis of lids. Paresis of orbicularis. Diminished secretion of tears. Sub conj. and choroidal hem. Retinal art. very small, veins dark. During cold stage pupils smaller.

**TRICHINOSIS.**—Par. oc. muscles, from migration of parasites<sup>2</sup> Dil. and fixed pupils.—(KITTEL).<sup>3</sup>

**PUERPERAL DISEASES.**<sup>1</sup> ABSCESES.<sup>2</sup> ERYSIPELAS (phlegmonous).<sup>2</sup> } Septic embolism of eye.

**DISSECTING WOUNDS.**<sup>2</sup> THROMBOSIS, CAVERNOUS SINUS.—Exophthalmos and panophthalmitis.

**SYPHILIS.**—Affects all parts of eye, except perhaps, lach. gland.

(a) Eye lids, chancre,<sup>2</sup> ulcers.<sup>2</sup>

(b) Conjunctiva, gummata,<sup>2</sup> mucous patches.<sup>2</sup>

(c) Cornea, interstitial infl. in the young.

(d) Iris, 3 or 4 percent. of all cases have iritis, (FOURNIER) gum., mydriasis.

(e) Sclera, gum. (Arch. Ophth., Dec., '82).<sup>3</sup>

(f) Cil. body, gum.,<sup>1</sup> paralysis of accommodative ap.

(g) Choroid, gum.,<sup>1</sup> infl. of.

(h) Retina, gum.,<sup>1</sup> infl. of.

(i) Opt. nerve, infl. of, gum.,<sup>1</sup> atrophy<sup>1</sup> from cerebral affection, "choked disk"<sup>1</sup> from gum. of the brain.<sup>1</sup>

(j) Oc. muscles, paralysis. The most frequent and often first symptom of cerebral syph. (cer. syph. may appear 20 years after inoculation, is usually very late). Relative frequency: First the 3d, then optic, facial and 6th. Paralysis often incomplete, preceded by transient double vision. Seventy-five per cent. of cases of par. of mot. nerves of eye due to syph. 3d, oftenest, dangerous sympt. indicates intra-cranial disease at base of brain, which may involve cerebral centers.

### IX.

#### POISONS.

**OPIUM NARCOSIS.**—Pupils contr., near death dil.

**OPIUM SMOKING.**—Pupils contr., puffy lids.

**ALCOHOL NARCOSIS.**—Pup. contr.

**ALCOHOLISM.**—Amblyopia potatorum, opt. neuritis and atrophy.

**TOBACCO NARCOSIS.**—Pupils contr.

**TOBACCO SMOKING.**—Amaurosis.<sup>2</sup>

**ANÆSTHETICS.**—Pupils contr.

**LEAD POISONING.**—Paralysis of accommodative apparatus,<sup>1</sup> oc. muscles,<sup>1</sup> opt. neuritis,<sup>1</sup> later atrophy,<sup>1</sup> pupils dil.<sup>1</sup>

**BELLADONNA, HYOSCYAMUS STRAMBOUM.**—Par. of accommodative ap., pupil dil.

**QUININE.**—(Large doses), hyperæmia of conj. and fundus oculi (large repeated doses), visual and color perception diminished, pupils fixed, anesthesia of cornea, opt. n. pale, retinal art. contr.<sup>3</sup>

**SALICYLIC ACID.**—do.<sup>3</sup>

**SALICYLATE OF SODA.**—Amblyopia.<sup>3</sup>

**CHLORAL.**—

